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**Before the U.S. House Committee on Small Business**
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**Summary of Testimony:** Biodiesel is a commercially viable, low-carbon renewable fuel that is widely accepted in the marketplace. There are significant economic, environmental and energy security benefits associated with the domestic production and use of biodiesel. Though there has been a significant increase in U.S. biodiesel production since 2004, the U.S. biodiesel industry is today in the midst of an economic crisis that threatens the industry's viability and the nation's ability to meet the use requirements for advanced biofuels established by the Energy Independence and Security Act (EISA). A stable federal policy framework that provides a multi-year extension of the biodiesel tax incentive and a workable Renewable Fuels Standard will allow the U.S. biodiesel industry to remain viable and play a constructive role in the nation's overall energy strategy.

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Chairwoman Velazquez, Ranking Member Graves and Members of the Committee, I thank you for the opportunity to testify today on behalf of the National Biodiesel Board (NBB) about the current economic status of the U.S. biodiesel industry.

**About NBB:** NBB is the national trade association representing the biodiesel industry as the coordinating body for research and development in the United States. It was founded in 1992 by state soybean commodity groups who were funding biodiesel research and development programs. Since that time, the NBB has developed into a comprehensive industry association which coordinates and interacts with a broad range of cooperators including industry, government and academia. NBB's membership is comprised of biodiesel producers; state, national and international feedstock and feedstock processor organizations; fuel marketers and distributors; and technology providers.

**Background and Industry Overview:** Biodiesel is a diesel replacement fuel made from agricultural oils, fats and waste greases that meets a specific commercial fuel definition and specification. The fuel is produced by reacting feedstock with an alcohol to remove the glycerin and meet the D6751 fuel specifications set forth by the American Society for Testing and Materials (ASTM International). Biodiesel is one of the best-tested alternative fuels in the country and the only alternative fuel to meet all of the testing requirements of the 1990 amendments to the Clean Air Act.

Biodiesel is primarily marketed as a 5% blending component with conventional diesel fuel, but can be used in concentrations up to 20%. It is distributed utilizing the existing fuel distribution infrastructure with blending occurring both at fuel terminals and "below the rack" by fuel jobbers. Biodiesel is beginning to be distributed through the petroleum terminal system. To

date, biodiesel is available in over 40 fuel distribution terminals. In the past year, two major pipeline companies have successfully tested B5 blends in pipelines, and the biodiesel industry has committed funds to continue to study the technical needs required for moving biodiesel through U.S. pipelines. Already, biodiesel is moved through pipelines in Europe and extending that capability in the U.S. would significantly increase biodiesel penetration in the U.S. diesel fuel market.

**Biodiesel Public Policy Benefits:** There are compelling public policy benefits associated with the enhanced production and use of biodiesel in the U.S.

*Biodiesel Reduces our Dependence on Foreign Oil:* Biodiesel can play a major role in expanding domestic refining capacity and reducing our reliance on foreign oil. The 690 million gallons of biodiesel produced in the U.S. in 2008 displaced 38.1 million barrels of petroleum, and increased production and use of biodiesel will further displace foreign oil. In addition, biodiesel is an extremely efficient fuel that creates 3.2 units of energy for every unit of fuel that is required to produce the fuel.

*Biodiesel is Good for the Environment:* Biodiesel is an environmentally safe fuel, and is the most viable transportation fuel when measuring its carbon footprint, life cycle and energy balance. The U.S. Department of Agriculture (USDA)/Department of Energy (DoE) lifecycle study shows a 78% reduction in direct lifecycle CO2 emissions for B100. 1 billion gallons of biodiesel will reduce current life cycle greenhouse gas emissions by 16.12 billion pounds, the equivalent of removing 1.4 million passenger vehicles from U.S. roads. In 2008 alone, biodiesel's contribution to reducing greenhouse gas emissions was equal to removing 980,000 passenger vehicles from America's roadways.

Biodiesel's emissions significantly outperform petroleum-based diesel. Research conducted in the U.S. shows biodiesel emissions have decreased levels of all target polycyclic aromatic hydrocarbons (PAH) and nitrited PAH compounds, as compared to petroleum diesel exhaust. These compounds have been identified as potential cancer causing compounds.

Biodiesel is the only alternative fuel to voluntarily perform Environmental Protection Agency (EPA) Tier I and Tier II testing to quantify emission characteristics and health effects. That study found that B20 (20% biodiesel blended with 80% conventional diesel fuel) provided significant reductions in total hydrocarbons; carbon monoxide; and total particulate matter. Research also documents the fact that the ozone forming potential of the hydrocarbon emissions of pure biodiesel is nearly 50% less than that of petroleum fuel. Pure biodiesel typically does not contain sulfur and therefore reduces sulfur dioxide exhaust from diesel engines to virtually zero.

*The Biodiesel Industry is Creating Green Jobs and Making a Positive Contribution to the Economy:* In 2008 alone, the U.S. biodiesel industry supported 51,893 jobs in all sectors of the economy. This added $4.287 billion to the nation's Gross Domestic Product (GDP) and generated $866.2 million in tax revenue for federal, state and local governments.

By conservative estimates, there is domestic feedstock available to support 1.77 billion gallons of annual biodiesel production in the U.S. The domestic industry has the capacity to support this level of production. The production of 1.77 billion gallons of fuel would support 78,619 jobs; add $6.660 billion to the GDP; displace 97.8 million barrels of petroleum; generate $1.345 billion in revenue for federal, state and local governments; and reduce greenhouse gas emissions by 27.4 billion pounds - the equivalent of removing 2.38 million passenger vehicles from U.S. roads.

*The Biodiesel Industry Stimulates Development of New Low-Carbon Feedstocks:* The feedstock used to produce U.S. biodiesel has increasingly diversified, with waste products such as animal fat and used restaurant grease (yellow grease) making up a larger portion of the feedstock used to produce fuel. Biodiesel production is currently the most efficient way to convert lipids into low-carbon diesel replacement fuel, and as a result, industry demand for less expensive, reliable sources of fats and oils is stimulating promising public, private and non-profit sector research on second generation feedstocks such as algae.

Algae's potential as a source of low carbon fuel has been well documented, and a stable, growing biodiesel industry is necessary if the U.S. is to eventually benefit from the commercial scale production of algal-based biofuels. The NBB estimates that for every 100 million gallons of biodiesel that is produced from algae, 16,455 jobs will be created and $1.461 billion will be added to the GDP.

**U.S. Biodiesel Industry is Facing Severe Economic Hardship:** Despite recent growth, the industry is in the midst of an economic crisis. Plants are having difficulty accessing operating capital. Volatility in commodity markets and reduced demand for biodiesel in both domestic and global markets are making it difficult for producers to sell fuel. Lastly, uncertainty relating to federal policy that is vital to the industry's survival is sending inconsistent signals to the marketplace and undermining investor confidence in the industry.

If prolonged, this downturn will lead to a severe retraction in U.S. biodiesel production capacity. Due to current market conditions, less than one-third of the industry's facilities are currently producing fuel. NBB estimates that absent any change in federal policy, U.S. biodiesel production will likely fall to 300 million gallons in 2009, which would cost the U.S. economy more than 29,000 jobs. The ability to meet the advanced biofuels goals established in the 2007 Energy Bill could be threatened if today's economic crisis is not addressed.

**A Reliable Policy Framework is Needed for U.S. Biodiesel Industry:** The U.S. biodiesel industry is not seeking the creation of new programs. Instead, common-sense improvements and thoughtful implementation of existing initiatives will help the industry survive in this difficult economic climate. Specifically, a multi-year extension of the biodiesel tax incentive and successful implementation of a workable RFS-2 are needed if the nation is to reap the future economic, environmental, and energy security benefits associated with the production and use of biodiesel.

Extension of the Biodiesel Tax Incentive is Vital to the U.S. Biodiesel Industry: The biodiesel tax incentive is a $1 per gallon blenders excise tax credit that can be claimed on biodiesel produced from vegetable oils, animal fats and used restaurant grease (yellow grease). The incentive can also be claimed in the form of a general business income tax credit. To qualify for the tax incentive, the biodiesel must by statute meet both the ASTM D6751 fuel specification and the EPA registration requirements under Section 211 of the Clean Air Act. The incentive was enacted in 2004 as part of the American Jobs Creation Act (P.L. 108-357). The incentive was subsequently extended through December 31, 2008 as part of the Energy Policy Act of 2005 (P.L. 109-190). H.R. 1424, the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the incentive for another year through December 31, 2009.

The biodiesel excise tax credit is claimed at the point where biodiesel is blended with conventional diesel fuel. Blenders are required to register with the Internal Revenue Service (IRS) to claim the incentive. The excise tax credit can be used to offset a blender's fuel excise

tax liability. To the degree that the incentive exceeds excise tax liability, eligible taxpayers may claim a refund from the IRS. This structure accomplishes the incentive's policy objective of helping to make biodiesel price competitive with conventional diesel fuel.

If the tax incentive is allowed to expire at the end of the year, the price of biodiesel will be significantly higher than petroleum diesel, thus further reducing demand and making it nearly impossible for biodiesel plants to produce fuel at a profit. Thus, it is safe to assume that if the biodiesel tax incentive lapses, biodiesel production in the U.S. will halt or at a minimum be severely curtailed, and the energy security, environmental, and job creation benefits that the nation realizes from biodiesel production will be lost.

Further, the short-term nature of the incentive under current law inadvertently sends the signal to the marketplace that the federal commitment to biodiesel is tenuous. At a time when market conditions are less than ideal and investor confidence is strained, the temporary nature of the incentive undermines overall confidence in the stability of the industry. A multi-year extension of a reformed tax incentive that is structured in a manner to promote a stable, viable domestic industry would address this situation and allow the U.S. to reap the multiple long-term benefits associated with the enhanced production and use of biodiesel.

A Workable RFS-2 will Stimulate Domestic Demand for Biodiesel and Help Industry Survive Economic Downturn: The Energy Independence and Security Act (P.L. 110-140) significantly expanded and improved the Renewable Fuels Standard (RFS-2). For the first time, RFS-2 specifically requires a renewable component in U.S. diesel fuel as part of the program's Advanced Biofuels Schedule. Specifically, RFS-2 requires the use of 500 million gallons of Biomass-based Diesel in 2009; 650 million gallons in 2010; 800 million gallons in 2011; and 1 billion gallons in 2012. Between 2012 and 2022, a minimum of 1 billion gallons must be used, and the Administrator of the EPA has the authority to set the use requirement at a higher level. Fuel must reduce greenhouse gas (ghg) emissions by 50% compared to conventional diesel fuel to qualify for the program. The statutory Biomass-based Diesel requirement is the first component of the Advanced Biofuels Schedule to be implemented.

The NBB supports timely implementation of the RFS-2 schedule established in P.L. 110-140. EPA has crafted a Notice of Proposed Rulemaking (NOPR), and this proposed rule has been forwarded to the Office of Management and Budget (OMB) for review.

Although NBB has not yet had the opportunity to formally review a draft of the RFS-2 NOPR, EPA personnel through stakeholder meetings have provided us with information indicating that the NOPR as currently drafted disqualifies Biomass-based Diesel derived from vegetable oil, including domestically-produced soybean and canola oil, from the Biomass-based Diesel schedule. Vegetable oils account for more than sixty percent of the feedstock that is available to meet the RFS-2 Biomass-based Diesel targets, and the use requirements established by this component of the Advanced Biofuels Schedule simply cannot be met if these feedstocks are disqualified from the program. We are hard pressed to believe this potential outcome is consistent with the will of Congress or sound environmental policy that values the displacement of petroleum diesel with low-carbon renewable fuels.

As mentioned previously, fuel must reduce ghg emissions by 50% compared to conventional diesel fuel to qualify for the Biomass-based Diesel program. By statute, significant indirect emissions are to be considered as part of the ghg emission calculation. EPA has opted to account for Indirect Land Use Change (ILUC) in its ghg calculations as part of the rulemaking process. The result is that the EPA inaccurately attributes significant deforestation in South America to

the cultivation of oilseeds such as soybeans and canola produced in the U.S. Thus, under the EPA's forthcoming proposed rule for RFS-2, these feedstocks could be disqualified from the Biomass-based diesel program.

The science pertaining to *direct* emissions is well established. The USDA/DoE lifecycle was initially published in 1998, and has been continually refined and updated since this time. According to this model, biodiesel reduces ghg emissions by 78%.

However, the science surrounding ILUC is at this point unreliable, incomplete and inexact. Premature publication and use of specific ghg emissions calculations based on faulty ILUC assumptions will be harmful to the U.S. biodiesel industry, as it will undermine investor confidence and further deprive the industry of the investment capital it will need to meet the Biomass-based Diesel schedule required in RFS-2. The methodology ultimately used by EPA in the RFS-2 rulemaking will have a significant impact on the overall success of the program, and the science and methodology employed by EPA should be subject to thorough public and academic review before numerical values are assigned to specific renewable fuels. Accordingly, specific ghg reduction calculations attributed to ILUC should not be published at this time until the methodology EPA plans to employ to make these calculations are subject to a through public review.

Again, Chairwoman Velazquez, Ranking Member Graves and Members of the Committee, I sincerely appreciate the opportunity to testify before you today, and would be more than happy to answer any questions you may have.